AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

1-42. (Cancelled)

43. (New) An external counterpulsation system comprising:

an inflatable device adapted to be received about the lower extremities of a patient;

a compressed fluid source in communication with said inflatable device;

a fluid distribution assembly in communication with said inflatable devices and said source of compressed fluid and operable to distribute compressed fluid from said source of compressed fluid to said inflatable devices;

a sensor operable to sense diastolic and systolic blood pressure data;

a data structure operable to store patient information;

a local computing device receiving said diastolic and systolic blood pressure data, generating a blood pressure waveform, and operable to control said fluid distribution assembly by controlling the inflation and deflation of said inflatable device to maximize a ratio of an area under a diastolic portion of said blood pressure waveform to an area under a systolic portion of said blood pressure waveform during counterpulsation and in communication with said data structure to receive said patient information; and

a remote computing device to receive said patient information over a communications link.

44. (New) The system of claim 43, wherein said data structure is a patient data structure for storing demographic information for the patient receiving treatment.

45. (New) The system of claim 44, wherein said local computing device stores said demographic information in said patient data structure.

46. (New) The system of claim 44, wherein said patient demographic information includes at least one of a patient identifier, a patient name, and patient medical data.

47. (New) The system of claim 43, wherein said data structure is a patient treatment data structure for storing treatment information for the patient receiving treatment.

48. (New) The system of claim 47, wherein said local computing device stores said treatment information in said patient treatment data structure.

49. (New) The system of claim 47, wherein said patient treatment information includes at least one of ECG data, ECG wave form, blood pressure data, blood flow data, heart rate data, treatment duration and inflation/deflation cycle data.

50. (New) The system of claim 43, wherein said computing device communicates said patient information over a communication link to a second computing device.

51. (New) The system of claim 43, wherein said local computing device controls inflation and deflation of said inflatable devices.

52. (New) An external counterpulsation system comprising:

an external counterpulsation device;

a patient treatment data structure storing treatment information for one or more patients receiving treatment by said external counterpulsation device;

a local computing device in communication with said patient treatment data structure and said external counterpulsation device, said local computing device controlling operation of the external counterpulsation device to maximize a ratio of diastolic pressure to systolic pressure and receiving said treatment information; and

a remote computing device in communication with said local computing device to receive said patient information.

53. (New) The system of claim 52, wherein said local computing device stores said treatment information in said patient treatment data structure.

54. (New) The system of claim 52, further comprising a patient data structure for storing demographic information for one or more patients receiving treatment.

55. (New) The system of claim 54, wherein said local computing device receives said patient demographic information and stores said demographic information in said patient data structure.

56. (New) The system of claim 55, wherein said patient demographic information includes at least one of a patient identifier, a patient name, and patient medical data.

57. (New) The system of claim 52, wherein the patient treatment information includes at least one of ECG data from the patient, blood pressure data from the patient, heart rate data from the patient and inflation/deflation cycle data associated with the external counterpulsation device.

58. (New) The system of claim 52, wherein said remote computing device is a medical registry computer.

59. (New) The system of claim 52, wherein said remote computing device is a computer operable for remote diagnostics.

60. (New) The system of claim 52, wherein said remote computing device is a computer operable for training.

61.   (New) A system comprising:

an external counterpulsation device;

a sensor operable to sense a diastolic pressure and a systolic pressure;

a patient treatment data structure for storing treatment information for one or more patients receiving treatment;

a local computing device in communication with said patient data structure to receive said treatment information, connected to the external counterpulsation device, operable to calculate a ratio of peak amplitudes of said diastolic pressure and said systolic pressure, and operable to control said external counterpulsation device based on said ratio; and

a remote computing device in communication with said local computing device to receive said patient information.

62.   (New) The system of claim 61, wherein said external counterpulsation device includes a plurality of inflatable devices adapted to be received about the lower extremities of the patient, a source of compressed fluid in fluid communication with said inflatable devices, and a fluid distribution assembly interconnected with said inflatable devices and said source of compressed fluid for distributing compressed fluid from said source of compressed fluid to said inflatable devices.

63.   (New) The system of claim 61, further comprising a patient data structure for storing demographic information for one or more patients receiving treatment.

64. (New) The system of claim 63, wherein said local computing device receives said patient demographic information and stores said demographic information in said patient data structure.

65. (New) The system of claim 64, wherein said patient demographic information includes at least one of a patient identifier, a patient name, and patient medical data.

66. (New) The system of claim 63, wherein said local computing device is adapted to communicate said patient demographic information over a communication link to a second computing device.

67. (New) The system of claim 61, wherein the patient treatment information includes at least one of ECG data from the patient, blood pressure data from the patient, heart rate data from the patient and inflation/deflation cycle data associated with the external counterpulsation device.

68. (New) The system of claim 61, wherein said remote computing device is a medical registry computer.

69. (New) The system of claim 61, wherein said remote computing device is a computer operable for remote diagnostics.

70. (New) The system of claim 61, wherein said remote computing device is a computer operable for training.

71. (New) A system for treating a patient and recording patient information, comprising:

an external counterpulsation device including an inflation/deflation valve, an inflatable device, and a sensor operable to sense treatment information;

a local computing device connected to the external counterpulsation device for controlling operation of the external counterpulsation device through each inflation/deflation cycle by maximizing a ratio of an area under a diastolic waveform to a systolic waveform, in communication with said sensor to receive said treatment information, and operable to output external counterpulsation device operation information;

an output device connected to the local computing device for displaying said treatment information and said external counterpulsation device operation information; and

a remote computing device to receive said information over a communications link.

72. (New) The system of claim 71, wherein said treatment information includes at least one of patient demographic information, patient treatment information, and treatment site information.

73.   (New)   The system of claim 71, wherein said treatment information includes patient ECG data and inflation/deflation data.

74.   (New)   The system of claim 73, wherein said inflation/deflation data includes indicating inflation and deflation of said inflatable device.

75.   (New)   The system of claim 73, wherein said inflation/deflation data includes a timing bar for each inflation/deflation cycle, a leading edge of said timing bar corresponding to the initiation of inflation and a trailing edge of said timing bar corresponding to the initiation of deflation.

76.   (New) The system of claim 75, wherein the timing bar further includes a trigger signal indicating a time at which each inflation/deflation cycle is triggered.

77.   (New)   The system of claim 74, wherein said inflation/deflation data includes a timing marker indicating inflation and deflation of the inflatable devices in relation to an ECG signal.

78.   (New)   The system of claim 77, wherein said timing marker is superimposed on an ECG signal to indicate inflation and deflation in relation to a QRS wave.

79.   (New) The system of claim 77, wherein the timing marker includes high frequency noise superimposed on the ECG signal.

80.   (New) The system of claim 71, wherein said treatment information includes at least one of ECG data, ECG waveform, applied pressure data, plethysmograph data, inflation time, deflation time, and cumulative treatment time.